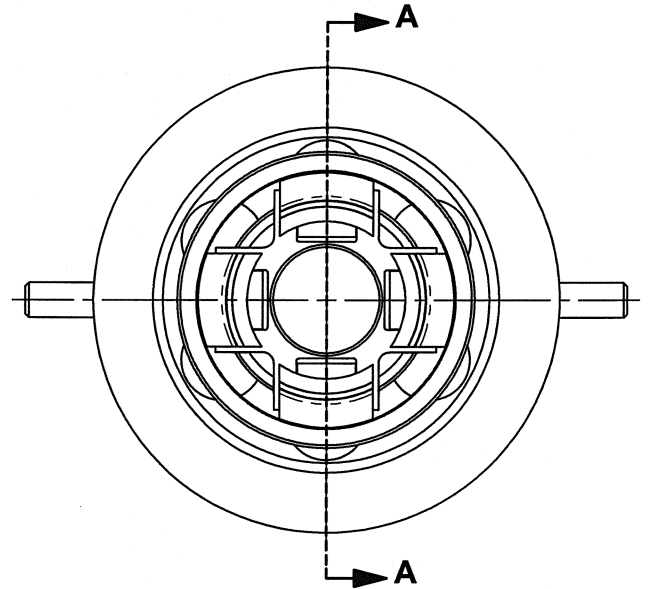
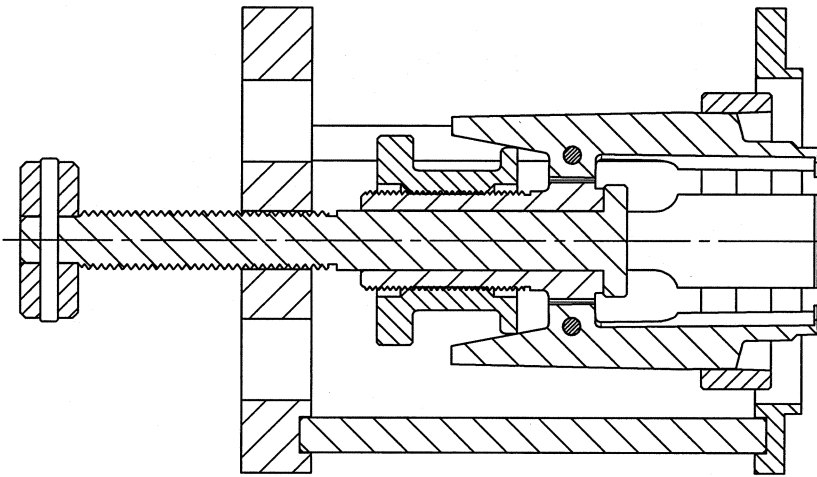
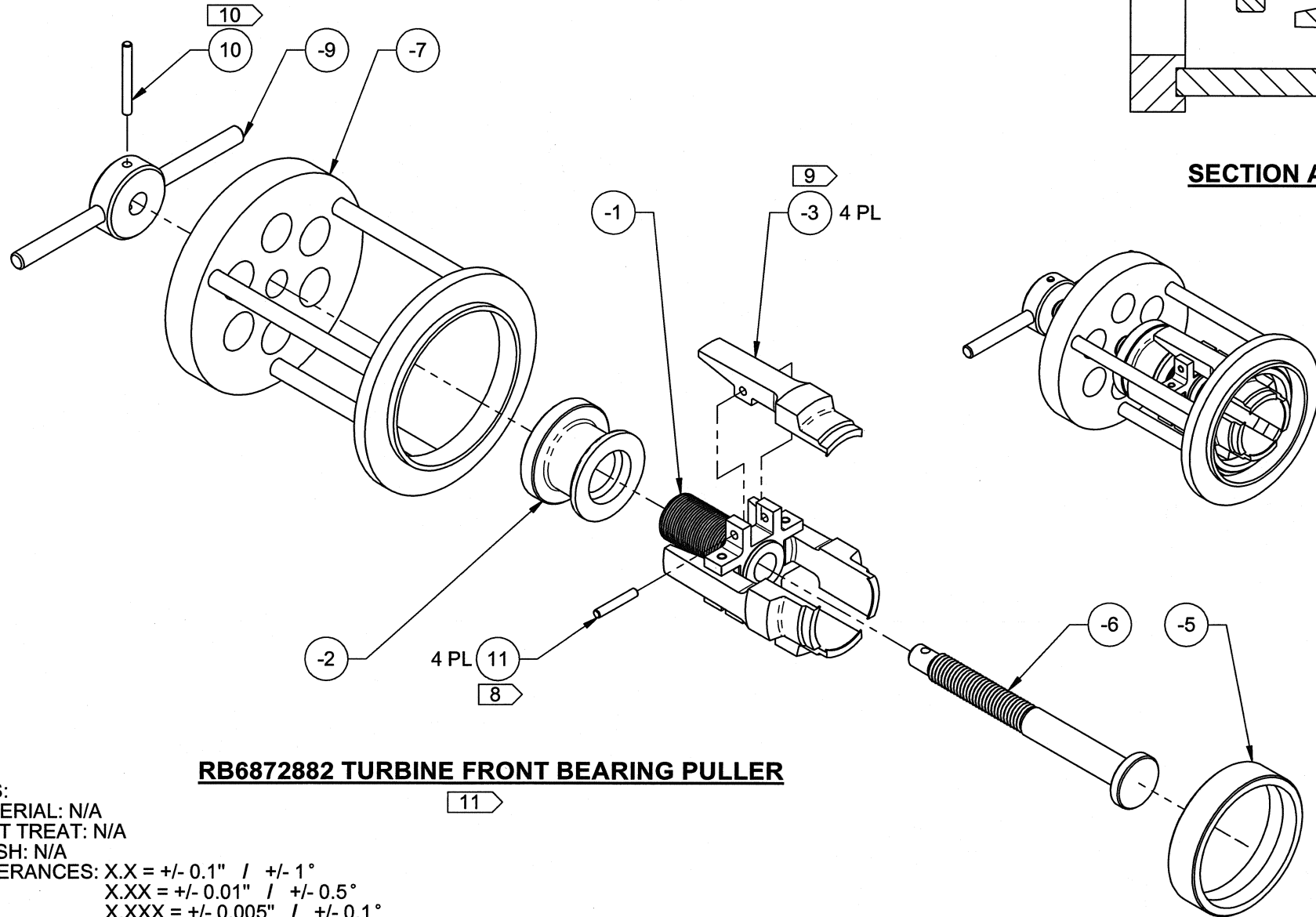


ITEM #	QTY	PART #	PART TITLE
-1	1	RB6872882-1	ADJUSTING SCREW
-2	1	RB6872882-2	ADJUSTING NUT
-3	4	RB6872882-3	FINGER
-5	1	RB6872882-5	RING
-6	1	RB6872882-6	JACK SCREW
-7	1	RB6872882-7	BODY WELDMENT
-9	1	RB6872882-9	HANDLE WELDMENT
10	1	McMaster#98381A515 OR EQUIV	STEEL DOWEL PIN 3/16" DIA. X 1-3/4" LG.
11	4	McMaster#98381A511 OR EQUIV	STEEL DOWEL PIN 3/16" DIA. X 1-1/8" LG.



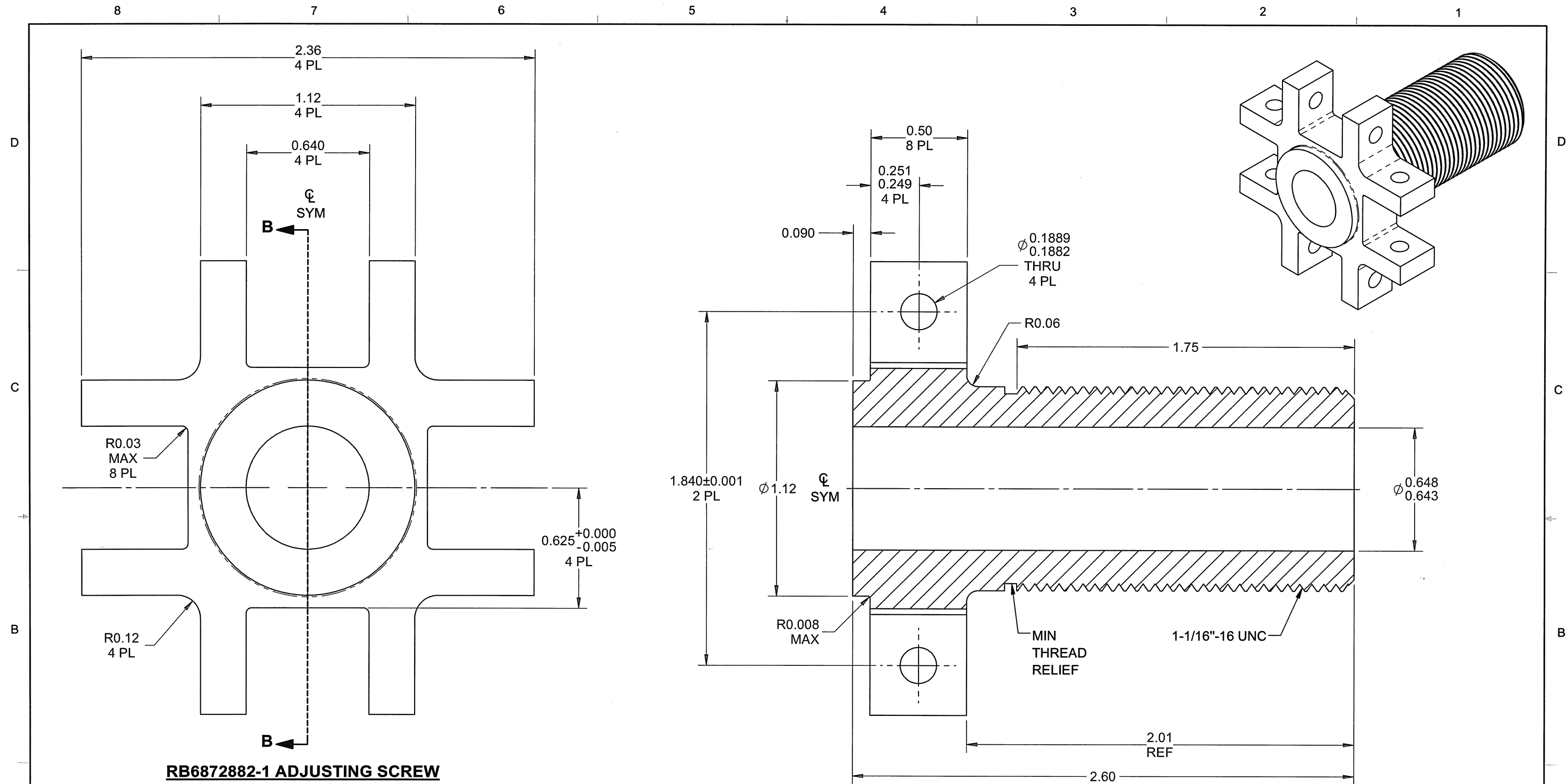
SECTION A-A



RB6872882 TURBINE FRONT BEARING PULLER

- NOTES:
- 1) MATERIAL: N/A
  - 2) HEAT TREAT: N/A
  - 3) FINISH: N/A
  - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
  - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 6) IDENTIFICATION: N/A
  - 7) ASSEMBLE AS SHOWN
  - 8) APPLY RETAINING COMPOUND LOCTITE 620 OR EQUIVALENT ON MATING SURFACES  
THEN PRESS FIT ITEM 11 WITH ITEM -1, AND REMOVE EXCESS
  - 9) ITEM -3 MUST MOVE FREELY BETWEEN SLOTS OF ITEM -1 AND AROUND ITEM 11 DOWEL PIN AS SHOWN
  - 10) APPLY RETAINING COMPOUND LOCTITE 620 OR EQUIVALENT ON MATING SURFACES  
THEN PRESS FIT ITEM 10 WITH ITEM -6, AND REMOVE EXCESS
  - 11) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

SEE PREVIOUS PDFs FOR OLDER REVs TEMPLATE UPDATED PER DART HBY STANDARDS ITEM -4 CHANGED FOR ITEM 11 ITEM -7B REPLACED BY PURCHASE PART ITEM 12 McMaster#98381A644 ITEM -8 CHANGED FOR ITEM 10 ITEM -9A REPLACED BY PURCHASE PART ITEM 13 McMaster#98381A686 ITEM -1 DIMENSION 4X .625 CHANGED FOR 0.625 +/-0.005 4 PL, DIMENSION 4X .920/.918 REPLACED BY 1.840 +/-0.001 2 PL, DIMENSION R0.008 MAX ADDED, MATERIAL 4140/4142 RC 32-36 CHANGED FOR 4140 36-40 Rc ITEM -2 DIMENSION 2X 60°/45° CHANGED FOR 0.07 X 45.0° CMF 2 PL, MATERIAL BRASS CHANGED FOR BRASS 360 ITEM -3 DIMENSION .036/.032 CHANGED FOR 0.034 +/-0.002, DIMENSION .625/.620 CHANGED FOR 0.625, DIMENSION .24 CHANGED FOR 0.238 +/-0.002, DIMENSION Ø.1874/.1871 CHANGED FOR Ø0.1875/0.1867, DIMENSION Ø2.062/2.060 CHANGED FOR Ø2.061 +/-0.001, DIMENSION .5 CHANGED FOR 0.50, MATERIAL 4140/4142 RC 36-40 CHANGED FOR O1 48-52 Rc, DIMENSION 0.708 ADDED ITEM -5 MATERIAL 1018/1020 CR CHANGED FOR 1018/1020/1025 CR, DIMENSION 1.78° REPLACED BY 3.56°, DIMENSION Ø2.776 CHANGED FOR Ø2.776 REF ITEM -6 MATERIAL 4140/4142 CHANGED FOR 4140, DIMENSION Ø.5000/.4995 CHANGED FOR Ø0.495 +/-0.005, DIMENSION .310 + .010/-0 CHANGED FOR 0.31 +0.01/-0, DIMENSION Ø.1874/.1871 CHANGED FOR Ø0.1875/0.1867, DIMENSION R0.008 MAX ADDED, DIMENSION Ø.635 CHANGED FOR Ø0.635 +/-0.005/-0 ITEM -7 GD&T TOLERANCES CORRECTED ITEM -7A DIMENSION .17 CHANGED FOR 0.20, DIMENSION .50 CHANGED FOR 0.52 +/-0.01/-0 ITEM -7C MATERIAL 1018/1020 CR CHANGED FOR 1018/1020/1025 CR, ENGRAVING S/N AND "MADE IN USA" REMOVED ITEM -9B MATERIAL 1018/1020 CR CHANGED FOR 4140 (28-32 Rc), DIMENSION Ø.5011/.5004 CHANGED FOR Ø0.500 +/-0.005/-0		19-755	VM
REV.	DESCRIPTION	ECN #	BY
DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	RB6872882	SHEET 1 OF 11
APPROVED	WJP	TITLE	SCALE
		TURBINE FRONT BEARING PULLER	NTS
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**RB6872882-1 ADJUSTING SCREW**

**SECTION B-B**

NOTES:  
1) MATERIAL: 4140  
2) HEAT TREAT: 36-40 Rc  
3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS  
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"  
5) UNITS: INCHES UNLESS OTHERWISE NOTED  
6) REMOVE ALL SHARP EDGES AND BURRS  
7) IDENTIFICATION: N/A

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 2 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DATE <b>2019-06-27</b>		<b>TURBINE FRONT BEARING PULLER</b>	NTS
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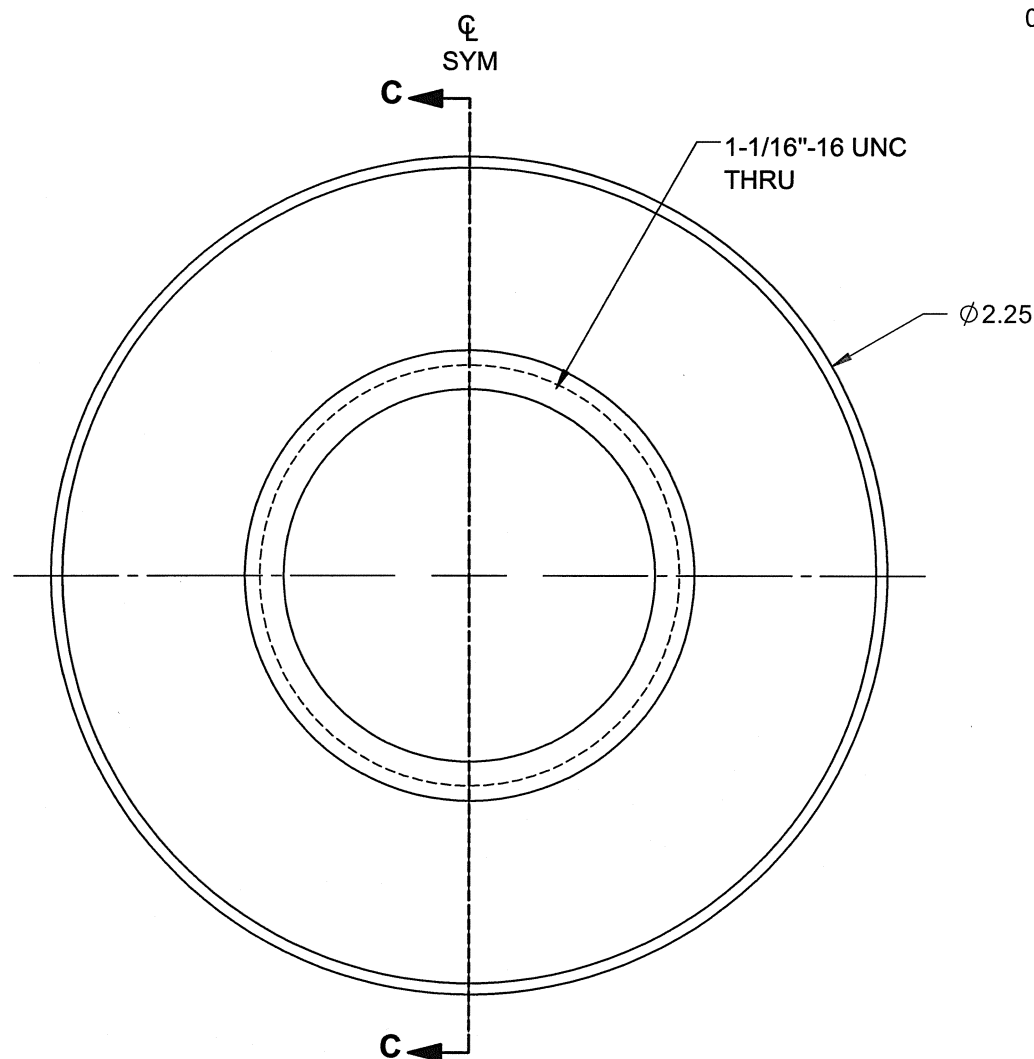
8 7 6 5 4 3 2 1

D

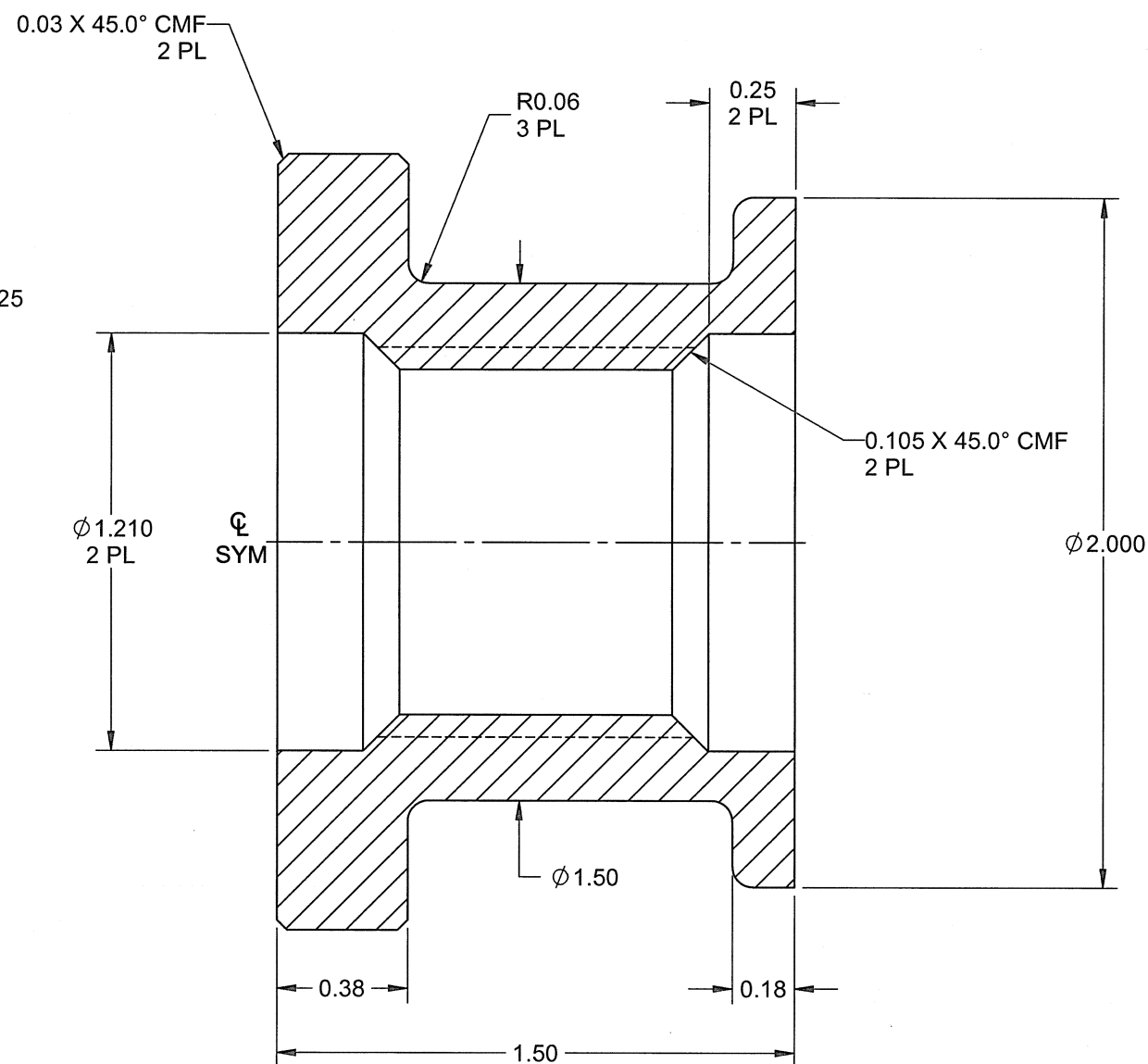
C

B

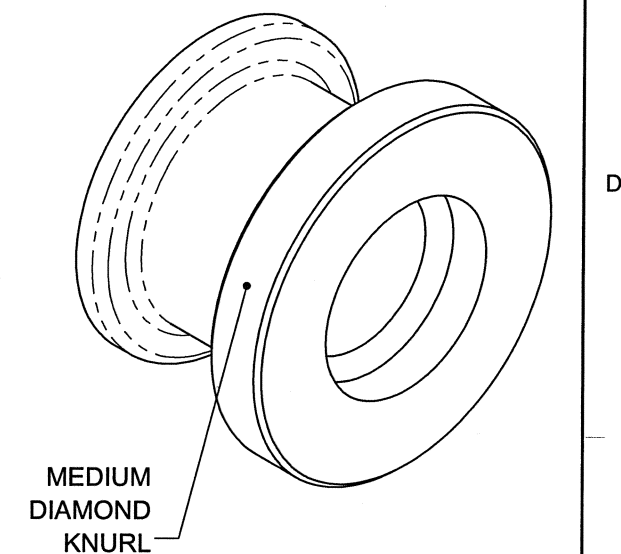
A



**RB6872882-2 ADJUSTING NUT**



**SECTION C-C**



- NOTES:
- 1) MATERIAL: BRASS 360
  - 2) HEAT TREAT: N/A
  - 3) FINISH: N/A
  - 4) TOLERANCES: X.X =  $\pm 0.1$ " /  $\pm 1^\circ$   
X.XX =  $\pm 0.01$ " /  $\pm 0.5^\circ$   
X.XXX =  $\pm 0.005$ " /  $\pm 0.1^\circ$   
X.XXXX =  $\pm 0.0005$ " /  $\pm 0.05^\circ$   
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES =  $\pm 0.005$ "
  - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 6) REMOVE ALL SHARP EDGES AND BURRS
  - 7) IDENTIFICATION: N/A

DESIGN	VM	<b>DART AEROSPACE LTD</b>	
DRAWN	VM	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 3 OF 11
APPROVED	WJ	TITLE	SCALE
DATE <b>2019-06-27</b>		<b>TURBINE FRONT BEARING PULLER</b>	NTS
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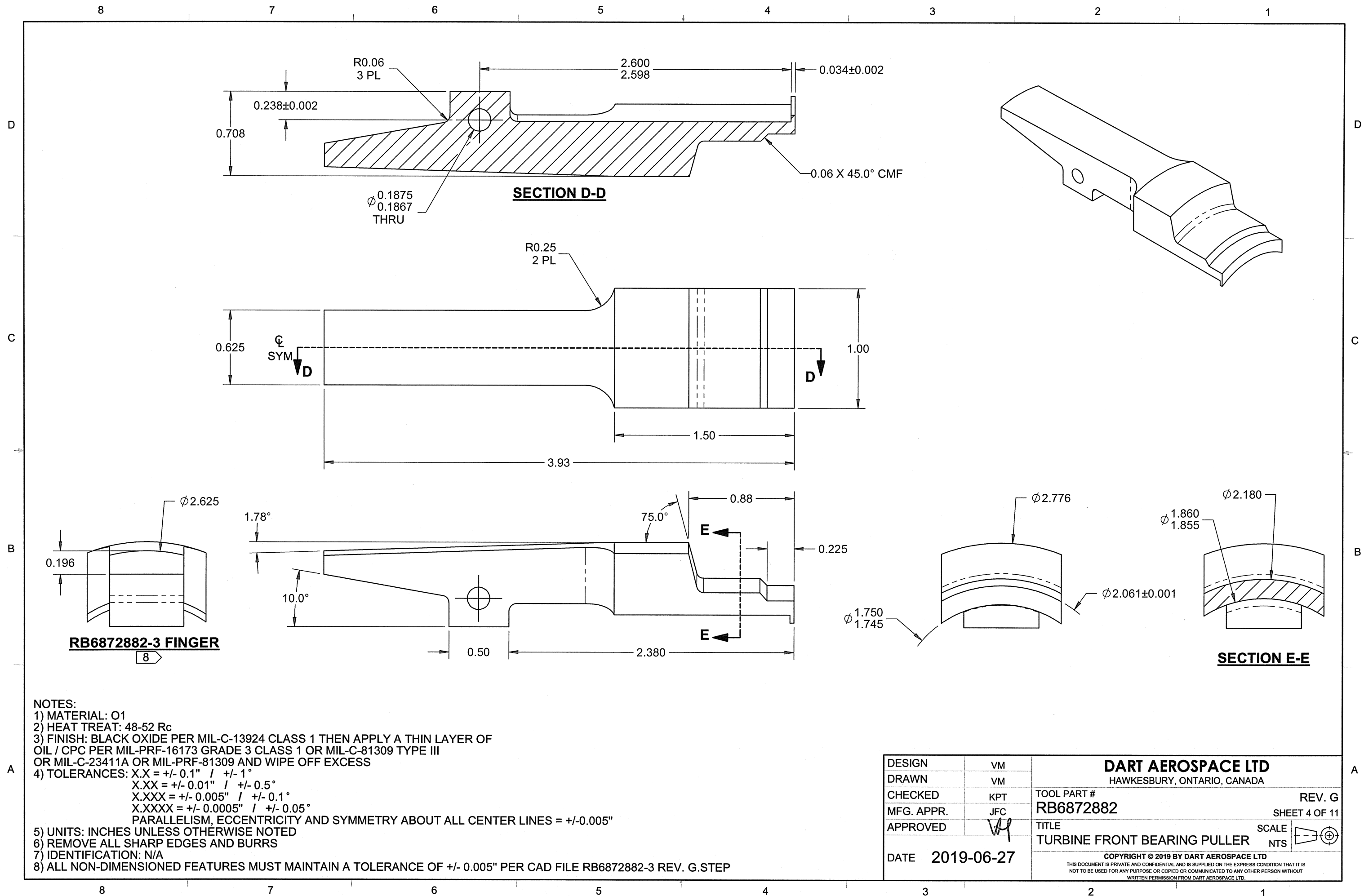
A

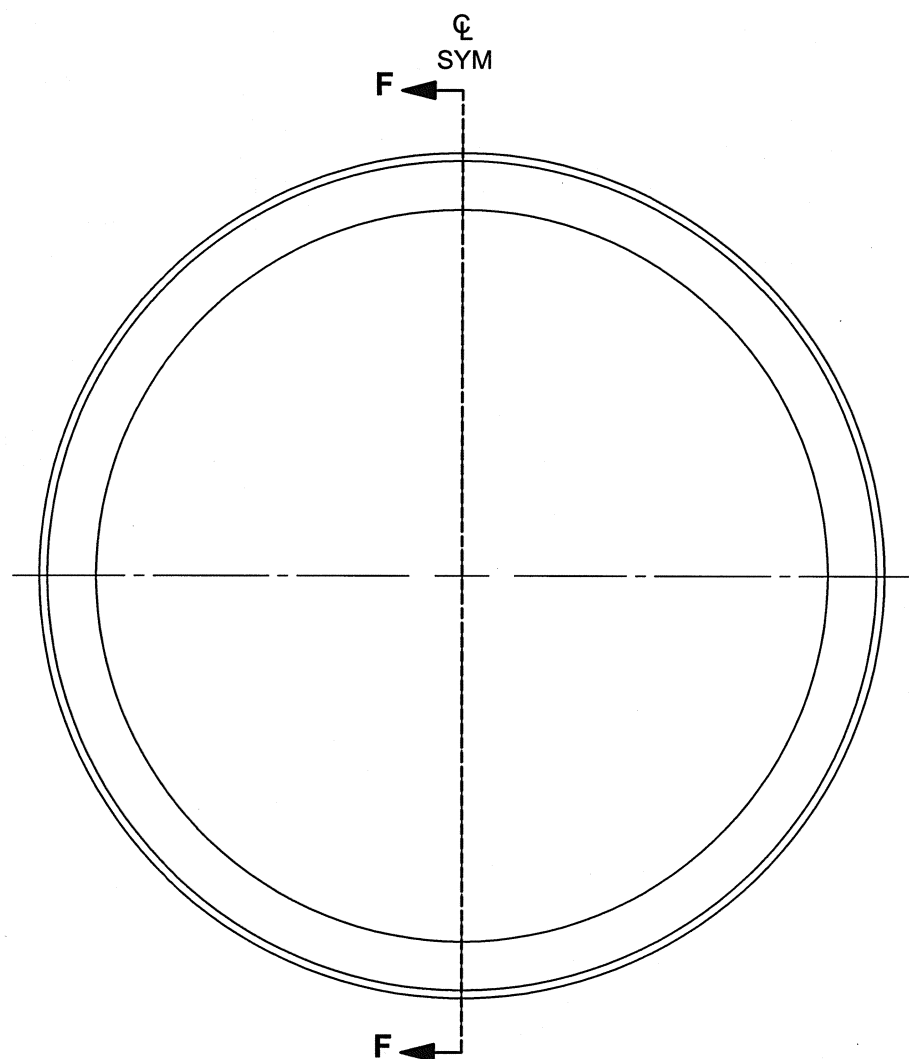
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C

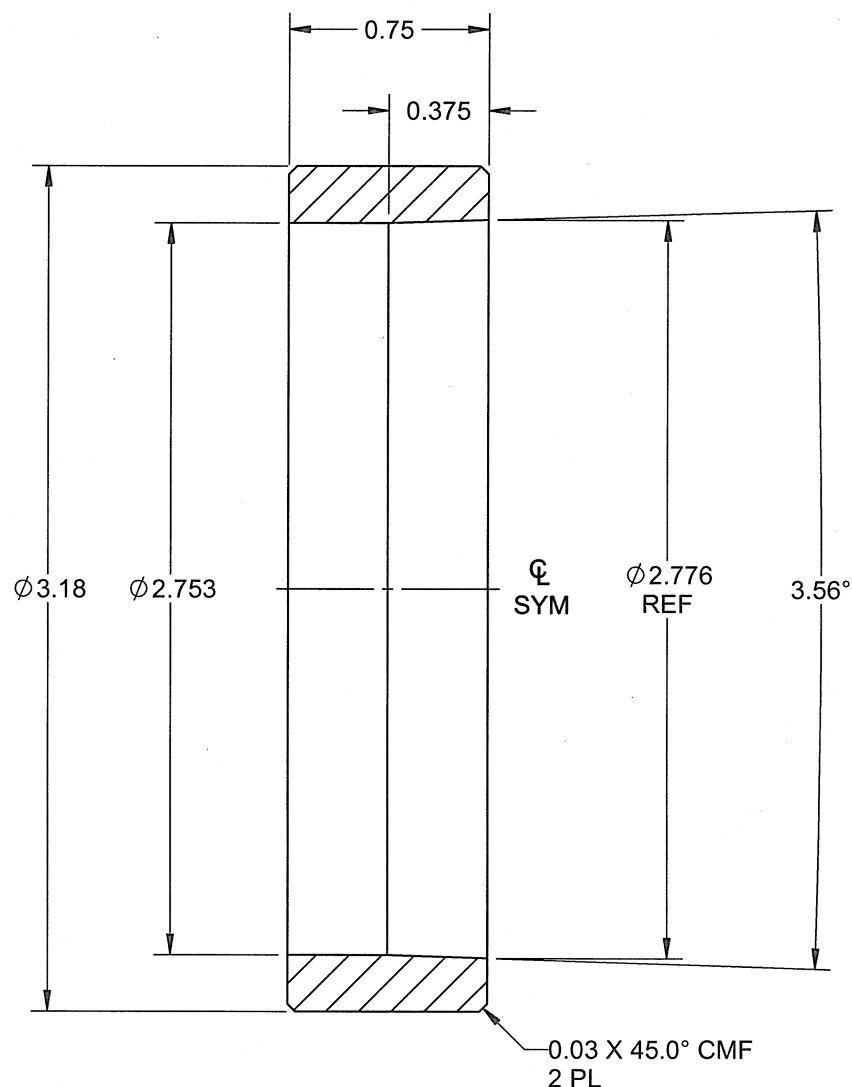
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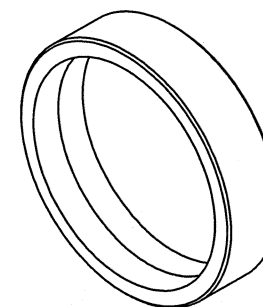




**RB6872882-5 RING**

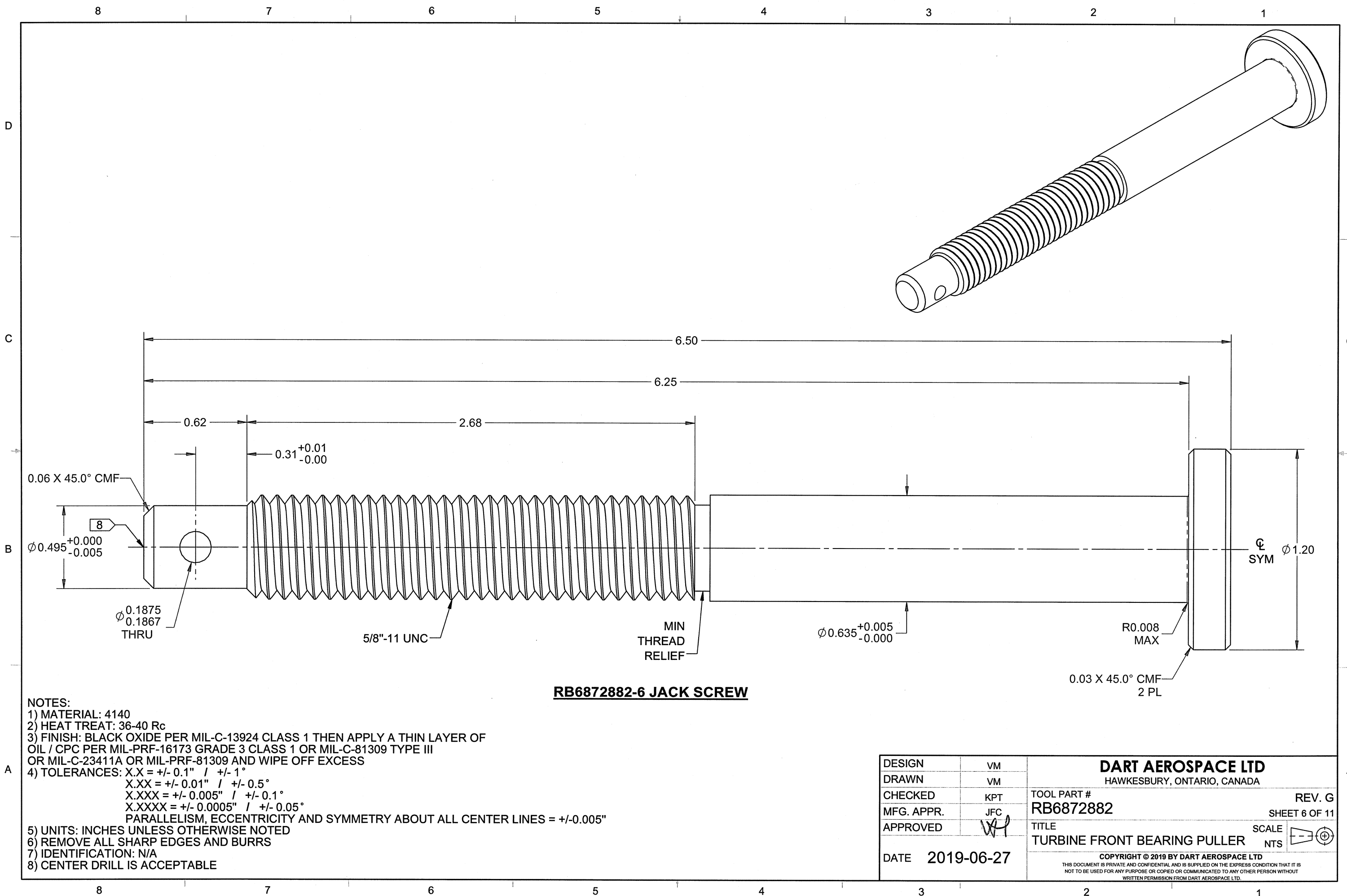


**SECTION F-F**



- NOTES:
- 1) MATERIAL: 1018/1020/1025 CR
  - 2) HEAT TREAT: N/A
  - 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
  - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
  - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 6) REMOVE ALL SHARP EDGES AND BURRS
  - 7) IDENTIFICATION: N/A

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 5 OF 11
APPROVED		TITLE	SCALE
DATE 2019-06-27		<b>TURBINE FRONT BEARING PULLER</b>	NTS
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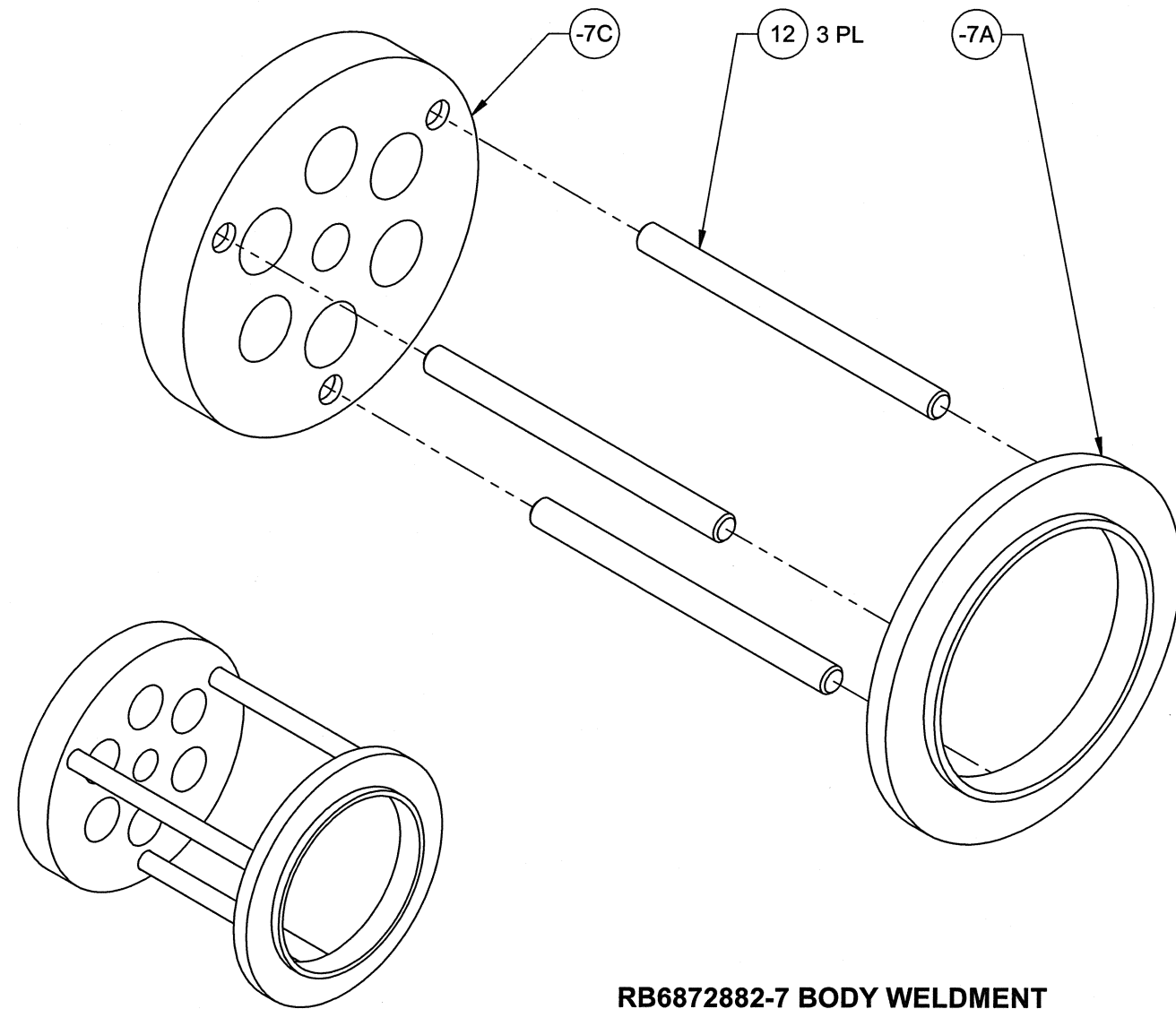


- NOTES:
- 1) MATERIAL: 4140
  - 2) HEAT TREAT: 36-40 Rc
  - 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
  - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
  - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 6) REMOVE ALL SHARP EDGES AND BURRS
  - 7) IDENTIFICATION: N/A
  - 8) CENTER DRILL IS ACCEPTABLE

**RB6872882-6 JACK SCREW**

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 6 OF 11
APPROVED		TITLE	SCALE
DATE <b>2019-06-27</b>		<b>TURBINE FRONT BEARING PULLER</b>	NTS
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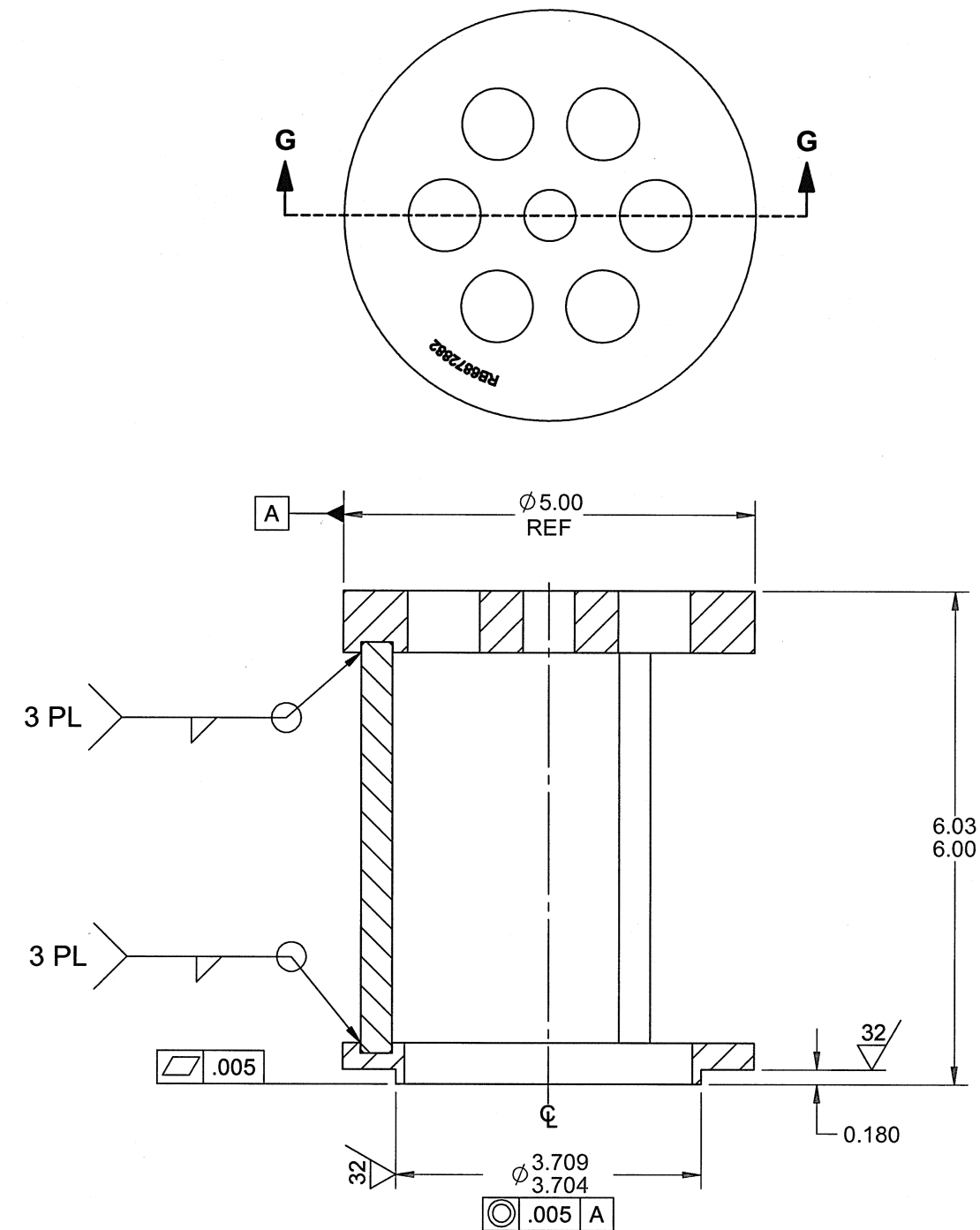
ITEM #	QTY	PART #	PART TITLE
-7A	1	RB6872882-7A	BODY BOTTOM
-7C	1	RB6872882-7C	BODY TOP
12	3	McMaster#98381A644 OR EQUIV	STEEL DOWEL PIN 3/8" DIA. X 5" LG.





**RB6872882-7 BODY WELDMENT**

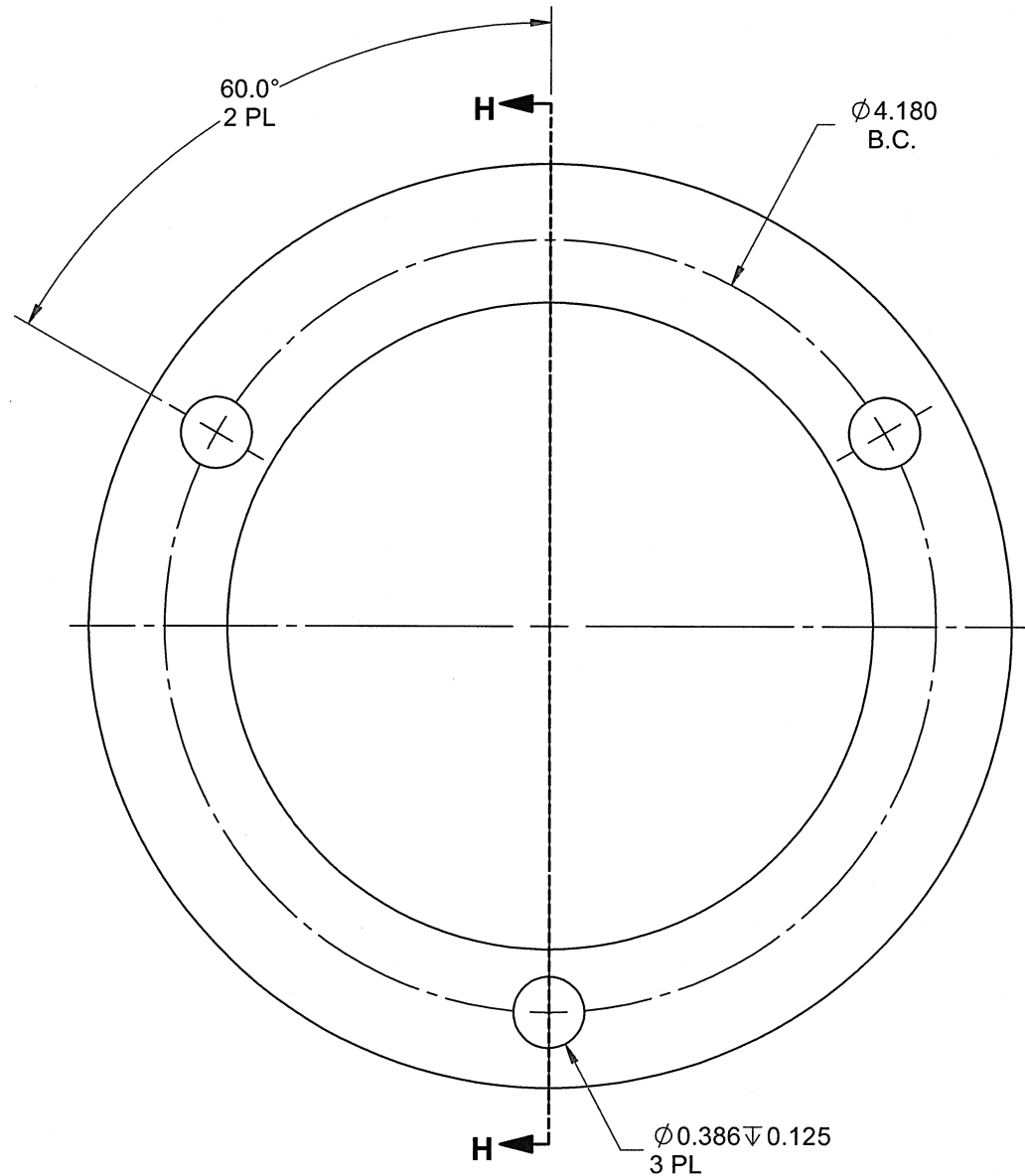
NOTES:

- 1) MATERIAL: N/A  
2) HEAT TREAT: N/A  
3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS  
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"  
5) UNITS: INCHES UNLESS OTHERWISE NOTED  
6) IDENTIFICATION: N/A  
7) ASSEMBLE AS SHOWN  
8) REMOVE ALL WELD SPATTERS

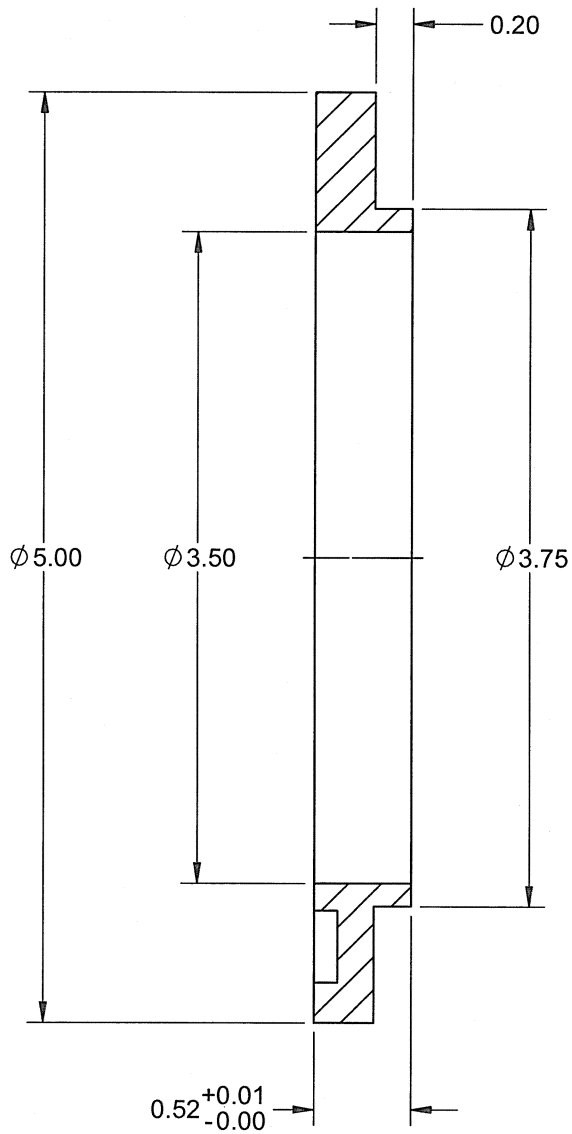


**SECTION G-G**

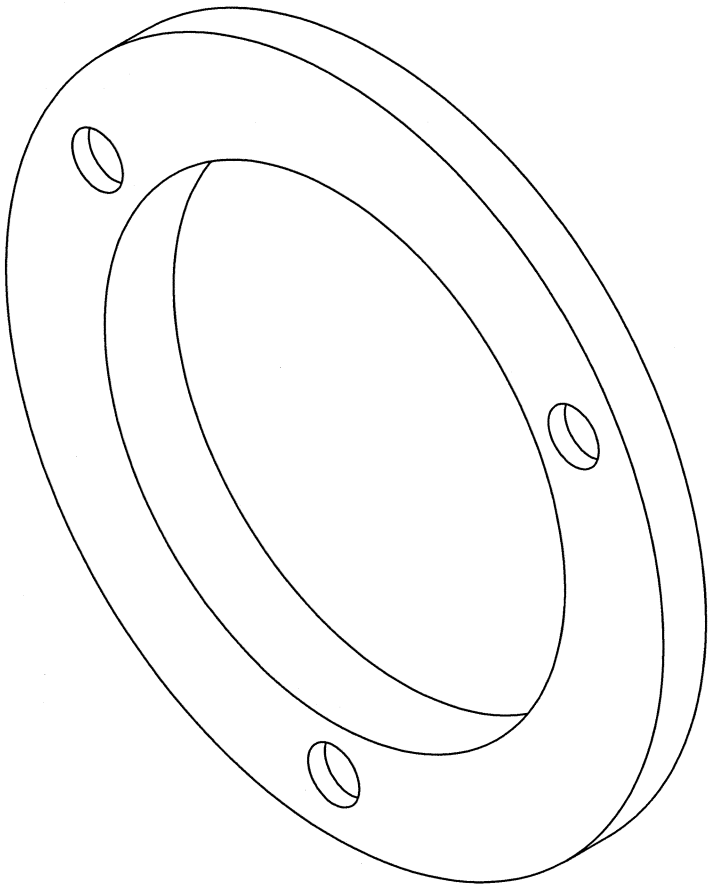
DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	RB6872882	SHEET 7 OF 11
APPROVED		TITLE	SCALE 
DATE 2019-06-27		<b>TURBINE FRONT BEARING PULLER</b> COPYRIGHT © 2019 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



**RB6872882-7A BODY BOTTOM**



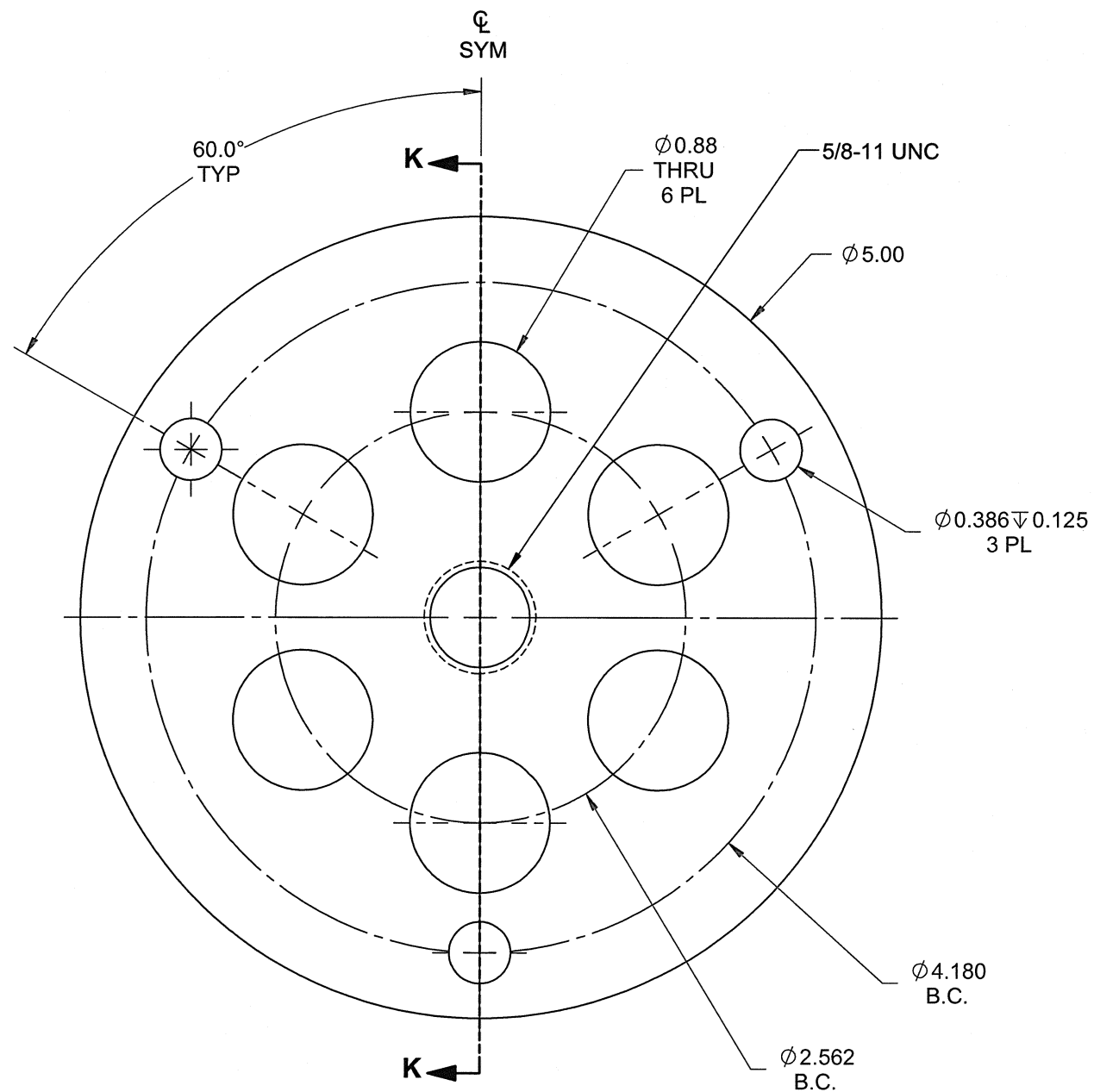
**SECTION H-H**



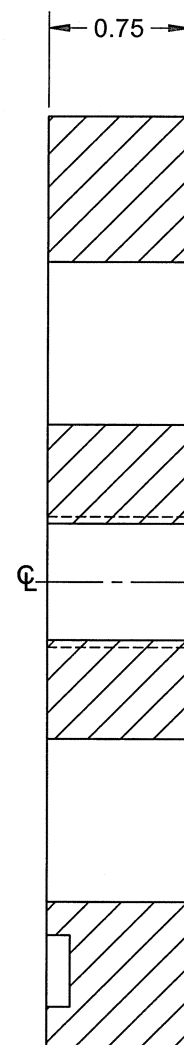
NOTES:  
 1) MATERIAL: 1018/1020/1025 CR  
 2) HEAT TREAT: N/A  
 3) FINISH: N/A  
 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
                   X.XX = +/- 0.01" / +/- 0.5°  
                   X.XXX = +/- 0.005" / +/- 0.1°  
                   X.XXXX = +/- 0.0005" / +/- 0.05°  
                   PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"  
 5) UNITS: INCHES UNLESS OTHERWISE NOTED  
 6) REMOVE ALL SHARP EDGES AND BURRS  
 7) IDENTIFICATION: N/A

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 8 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
		<b>TURBINE FRONT BEARING PULLER</b>	NTS
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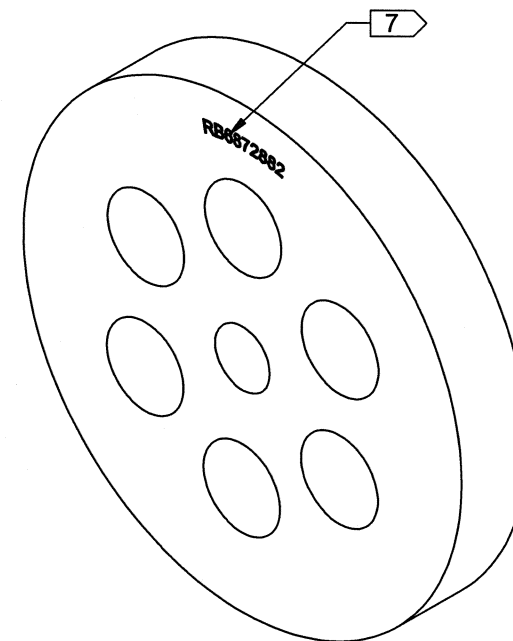




**RB6872882-7C BODY TOP**



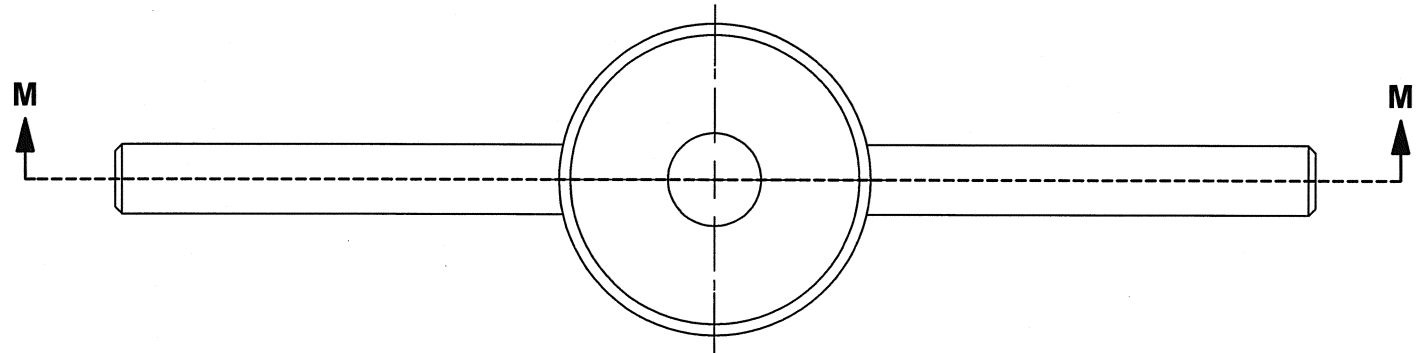
**SECTION K-K**



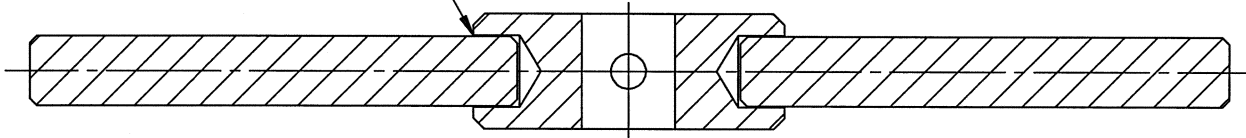
- NOTES:
- 1) MATERIAL: 1018/1020/1025 CR
  - 2) HEAT TREAT: N/A
  - 3) FINISH: N/A
  - 4) TOLERANCES: X.X =  $\pm 0.1"$  /  $\pm 1^\circ$   
X.XX =  $\pm 0.01"$  /  $\pm 0.5^\circ$   
X.XXX =  $\pm 0.005"$  /  $\pm 0.1^\circ$   
X.XXXX =  $\pm 0.0005"$  /  $\pm 0.05^\circ$   
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES =  $\pm 0.005"$
  - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 6) REMOVE ALL SHARP EDGES AND BURRS
  - 7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK T/N, "RB6872882", AS SHOWN

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 9 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
		<b>TURBINE FRONT BEARING PULLER</b>	NTS
DATE	<b>2019-06-27</b>	COPYRIGHT © 2019 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

ITEM #	QTY	PART #	PART TITLE
-9B	1	RB6872882-9B	HANDLE HUB
13	2	McMaster#98381A686 OR EQUIV	STEEL DOWEL PIN 3/8" DIA. X 2-5/8" LG.

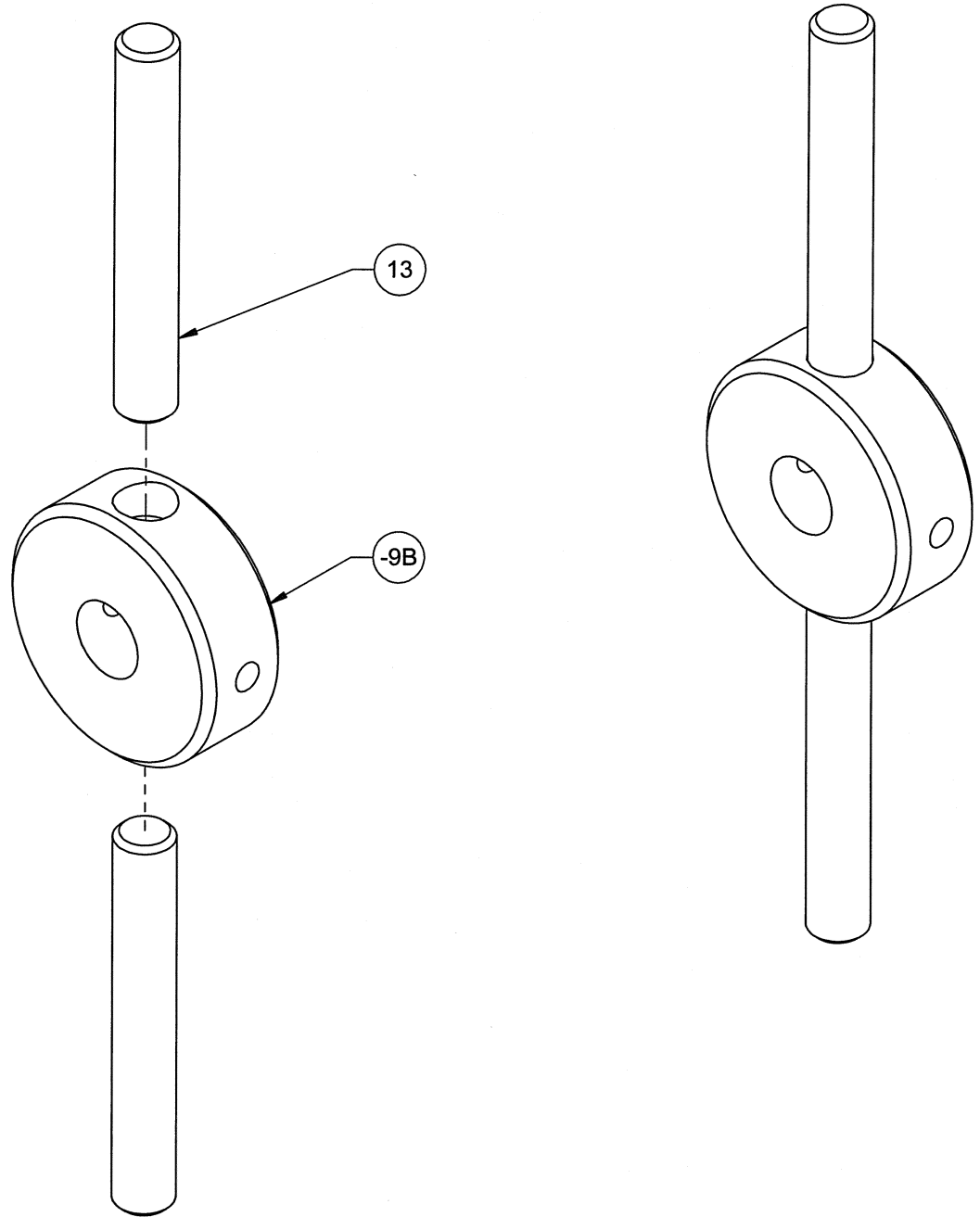


2 PL



SECTION M-M

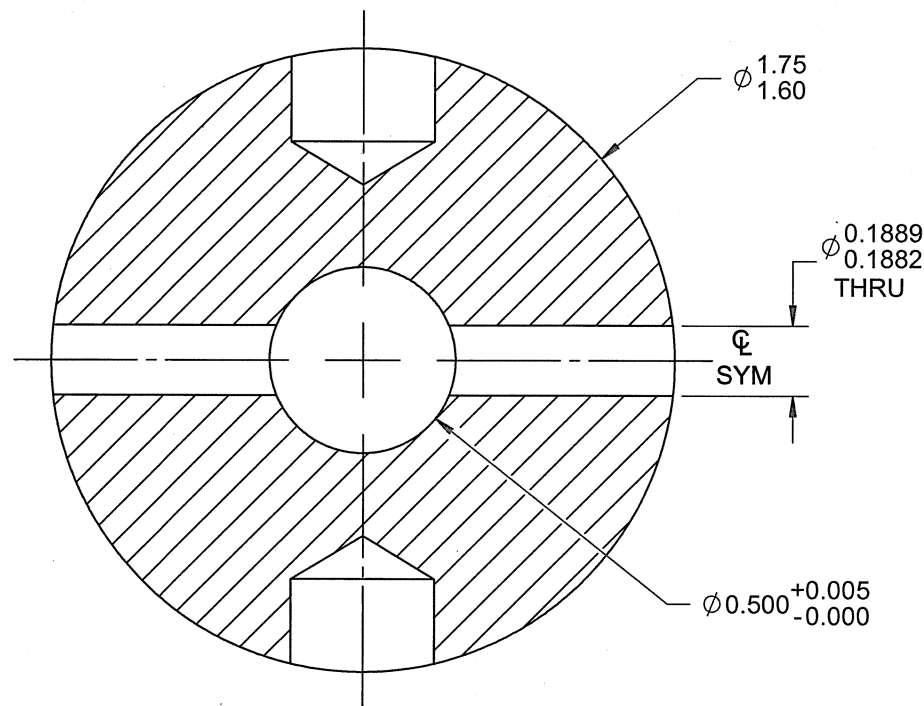
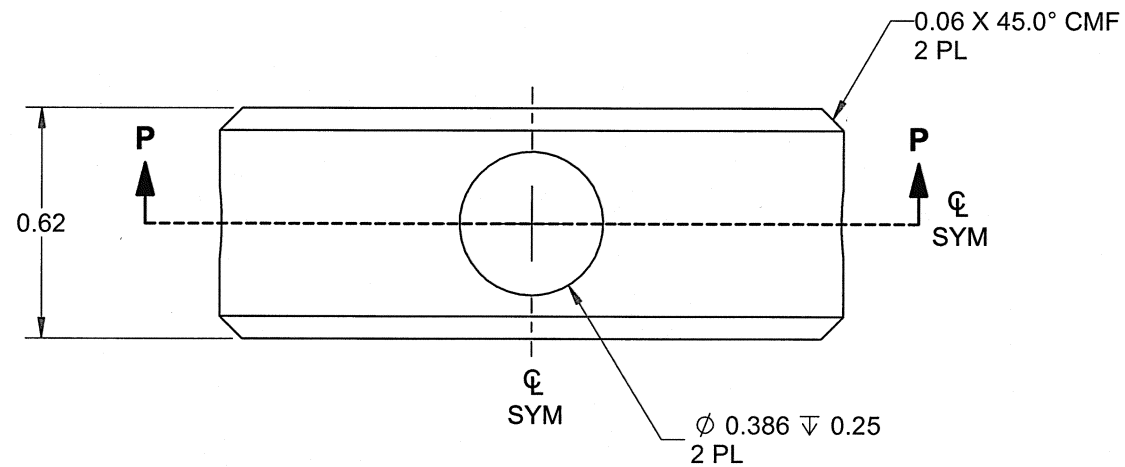
**RB6872882-9 HANDLE WELDMENT**



NOTES:

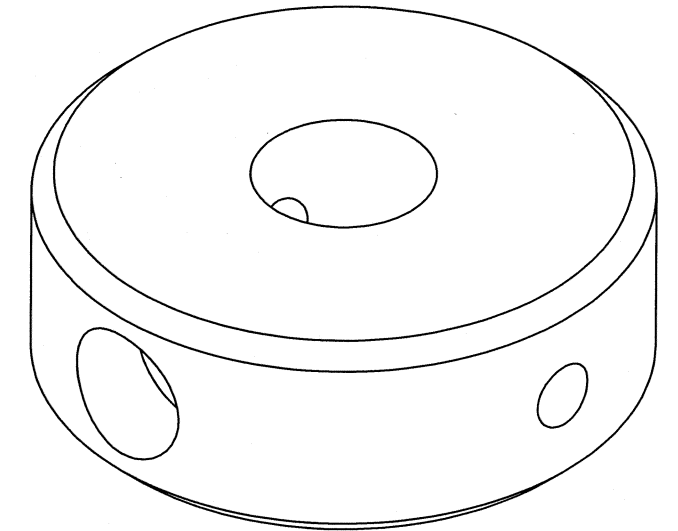
- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) REMOVE ALL WELD SPATTERS

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART #	REV. G
MFG. APPR.	JFC	<b>RB6872882</b>	SHEET 10 OF 11
APPROVED		TITLE	SCALE
DATE 2019-06-27		<b>TURBINE FRONT BEARING PULLER</b>	NTS
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# **SECTION P-P**

## **RB6872882-9B HANDLE HUB**



### **NOTES:**

- 1) MATERIAL: 4140 (28-32 RC)
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X =  $\pm$  0.1" /  $\pm$  1°  
X.XX =  $\pm$  0.01" /  $\pm$  0.5°  
X.XXX =  $\pm$  0.005" /  $\pm$  0.1°  
X.XXXX =  $\pm$  0.0005" /  $\pm$  0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES =  $\pm$  0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) REMOVE ALL SHARP EDGES AND BURRS
- 7) IDENTIFICATION: N/A

DESIGN	VM	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM		
CHECKED	KPT	TOOL PART # <b>RB6872882</b>	REV. G
MFG. APPR.	JFC	TITLE <b>TURBINE FRONT BEARING PULLER</b>	SHEET 11 OF 11
APPROVED	<i>[Signature]</i>		SCALE NTS
DATE <b>2019-06-27</b>		COPYRIGHT © 2019 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	